

PTO/SB/08 (11-07)

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Substitute for form 1449/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>		
				Application Number	10/574,055	
				Filing Date	April 6, 2007	
				First Named Inventor	Robert S. Puskas	
				Art Unit	2857	
				Examiner Name	Unassigned	
Sheet	1	Of	8	Attorney Docket Number		31469-708.831

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	1.	US 2002/0030812	03/14/2002	Ortyn et al.		
	2.	US 2006/0003333	01/05/2006	Puskas		
	3.	US 2002/0167665	11/14/2002	Yeung et al.		
	4.	US 2003/0029995	02/13/2003	Mullins et al.		
	5.	US 2005/0164205	07/28/2005	Puskas		
	6.	US 2006/0078998	04/13/2006	Puskas		
	7.	US 3,826,364	07/30/1974	Bonner, et al.		
	8.	US 4,071,298	01/31/1978	Falconer		
	9.	US 4,172,227	10/23/1979	Tyrer et al.		
	10.	US 4,243,318	01/06/1981	Stohr		
	11.	US 4,251,733	02/17/1981	Hirleman, Jr.		
	12.	US 4,452,773	06/05/1984	Molday		
	13.	US 4,727,020	02/23/1988	Recktenwald		
	14.	US 4,768,879	09/06/1988	McLachlan et al.		
	15.	US 4,770,183	09/13/1988	Groman, et al.		
	16.	US 4,793,705	12/27/1988	Shera		
	17.	US 4,927,265	05/22/1990	Brownlee		
	18.	US 4,979,824	12/25/1990	Mathies et al.		
	19.	US 5,002,389	03/26/1991	Benser		
	20.	US 5,041,733	08/20/1991	Noguchi et al.		
	21.	US 5,108,179	04/28/1992	Myers		
	22.	US 5,138,170	08/11/1992	Noguchi et al.		
	23.	US 5,209,834	05/11/1993	Shera		
	24.	US 5,269,937	12/14/1993	Dollinger et al.		

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Attorney Docket No. 31469-708.831

PTO/SI/08 (11-07)

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	25.	US 5,385,707	03/31/1995	Miltenyi, et al.		
	26.	US 5,480,614	01/02/1996	Kamahori		
	27.	US 5,528,045	06/18/1996	Hoffman, et al.		
	28.	US 5,540,494	07/30/1996	Purvis Jr. et al.		
	29.	US 5,543,838	08/06/1996	Hosier et al.		
	30.	US 5,571,410	11/05/1996	Swedberg et al.		
	31.	US 5,603,351	02/18/1997	Cherukuri et al.		
	32.	US 5,605,662	02/25/1997	Heller et al.		
	33.	US 5,633,503	05/27/1997	Kosaka		
	34.	US 5,645,702	07/08/1997	Witt et al.		
	35.	US 5,653,859	08/05/1997	Parton et al.		
	36.	US 5,653,939	08/05/1997	Hollis et al.		
	37.	US 5,658,413	08/19/1997	Kaltenbach et al.		
	38.	US 5,681,751	10/28/1997	Begg et al.		
	39.	US 5,682,038	10/28/1997	Hoffman		
	40.	US 5,716,825	02/10/1998	Hancock et al.		
	41.	US 5,746,901	05/05/1998	Balch et al.		
	42.	US 5,755,942	05/26/1998	Zanzucchi et al.		
	43.	US 5,770,029	06/23/1998	Nelson et al.		
	44.	US 5,793,485	08/11/1998	Goutley		
	45.	US 5,795,158	08/18/1998	Warinner		
	46.	US 5,798,222	08/25/1998	Goix		
	47.	US 5,807,677	09/15/1998	Eigen et al.		
	48.	US 5,858,195	01/12/1999	Ramsey		

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /KG/

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	49.	US 5,863,801	01/26/1999	Southgate et al.		
	50.	US 5,949,532	09/07/1999	Schroff et al.		
	51.	US 5,955,028	09/21/1999	Chow		
	52.	US 5,989,402	11/23/1999	Chow et al.		
	53.	US 5,999,250	12/07/1999	Hairston et al.		
	54.	US 6,041,515	03/28/2000	Ally et al.		
	55.	US 6,049,380	04/11/2000	Goodwin et al.		
	56.	US 6,071,478	06/06/2000	Chow		
	57.	US 6,140,048	10/31/2000	Muller et al.		
	58.	US 6,177,277	01/23/2001	Soini		
	59.	US 6,211,955	04/03/2001	Basiji et al.		
	60.	US 6,249,341	06/19/2001	Basiji et al.		
	61.	US 6,280,960	08/28/2001	Carr		
	62.	US 6,309,886	10/30/2001	Ambrose et al.		
	63.	US 6,355,420	03/12/2002	Chan		
	64.	US 6,386,219	05/14/2002	Barth et al.		
	65.	US 6,388,746	05/14/2002	Eriksson et al.		
	66.	US 6,403,947	06/11/2002	Hoyt et al.		
	67.	US 6,473,176	10/29/2002	Basiji et al.		
	68.	US 6,495,104	12/17/2002	Unno et al.		
	69.	US 6,506,609	01/14/2003	Wada et al.		
	70.	US 6,532,067	03/11/2003	Chang et al.		
	71.	US 6,537,437	03/25/2003	Galambos et al.		
	72.	US 6,582,903	06/24/2003	Rigler et al.		

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	73.	US 6,599,436	07/29/2003	Matzke et al.		
	74.	US 6,608,680	08/19/2003	Basiji et al.		
	75.	US 6,689,323	02/10/2004	Fisher et al.		
	76.	US 6,783,992	08/31/2004	Robotti et al.		
	77.	US 6,802,342	10/12/2004	Fernandes et al.		
	78.	US 6,811,668	11/02/2004	Berndt et al.		
	79.	US 6,816,257	11/09/2004	Goix		

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> - Number <sup>3</sup> - Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	80.	DE 3720844	01/05/1989	Miltenyi, et al.		
	81.	WO 90/10876 A1	09/20/1990	Adrian, et al.		
	82.	WO 99/54641 A1	11/04/1999	Borrelli, et al.		

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>5</sup>
	83.	AMBROSE, et al. Single molecule fluorescence spectroscopy at ambient temperature. Chemical Reviews. 1999; 99(10): 2929-56.				
	84.	ANAZAWA, et al. Electrophoretic quantitation of nucleic acids without amplification by single molecule imaging. Anal. Chem. 2002; 74(19): 5033-38.				
	85.	BECKER, et al. Three-dimensional photogrammetric particle-tracking velocimetry. Preparing for the Future. 1995; 5(3). Available at <a href="http://esapub.esrin.esa.it/pf/pf/v5n3/beckv5n3.htm">http://esapub.esrin.esa.it/pf/pf/v5n3/beckv5n3.htm</a> (7 pages).				

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	86.	BIESCHKE, et al., Ultrasensitive detection of pathological prion protein aggregates by dual-color scanning for intensely fluorescent targets. <i>Proc Natl Acad Sci USA</i> . 2000; 97(10): 5468-5473.			
	87.	BOUCHON, et al. Cutting edge: inflammatory responses can be triggered by TREM-1, a novel receptor expressed on neutrophils and monocytes. <i>The Journal of Immunology</i> . 2000; 164(10): 4991-1995.			
	88.	BRINKMEIER, et al. Two-beam cross-correlation: a method to characterize transport phenomena in micrometer-sized structures. <i>Anal. Chem</i> . 1999; 71(3): 609-616.			
	89.	CASTRO, et al. Fluorescence detection and size measurement of single DNA molecules. <i>Anal. Chem</i> . 1993; 65(7): 849-852.			
	90.	CASTRO, et al. Single molecule detection: applications to ultrasensitive biochemical analysis. <i>Applied Optics</i> . 1995; 34(18): 3218-3222.			
	91.	CASTRO, et al. Single-molecule detection of specific nucleic acid sequences in unamplified genomic DNA. <i>Anal. Chem</i> . 1997; 69(19): 3915-3920.			
	92.	CASTRO, et al. Single-molecule electrophoresis. <i>Anal. Chem</i> . 1995; 67(18):3181-3186.			
	93.	CASTRO, et al. Ultrasensitive, direct detection of a specific DNA sequence of <i>Bacillus anthracis</i> in solution. <i>The Analyst</i> . 2000; 125: 9-11.			
	94.	CHEN, et al. Single-molecule detection in capillary electrophoresis: molecular shot noise as a fundamental limit to chemical analysis. <i>Anal. Chem</i> . 1996; 68(4): 690-696.			
	95.	COHEN, et al. Rapid separation and purification of oligonucleotides by high-performance capillary gel electrophoresis. <i>Proc Natl Acad Sci USA</i> . 1988; 85(24): 9660-9663.			
	96.	COLONNA, M. TREMS in the immune system and beyond. <i>Nature Reviews: Immunology</i> . 2003; 3(6): 445-453.			
	97.	CSIRO Australia. Image motion, tracking and registration. Available at <a href="http://www.cmis.csiro.au/IAP/Motion/">http://www.cmis.csiro.au/IAP/Motion/</a> no date			

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	98.	DOVICH, et al. Laser-induced fluorescence of flowing samples as an approach to single-molecule detection in liquids. <i>Anal. Chem.</i> 1984; 56(3): 348-354.		
	99.	EFFENHAUSER, et al. Integrated capillary electrophoresis on flexible silicone microdevices: analysis of DNA restriction fragments and detection of single DNA molecules on microchips. <i>Anal. Chem.</i> 1997; 69(17): 3451-3457.		
	100.	ETZIONI, et al. The case for early detection. <i>Nature Reviews: Cancer.</i> 2003; 3(4): 243-252.		
	101.	FISTER, et al. Counting single chromophore molecules for ultrasensitive analysis and separations on microchip devices. <i>Anal. Chem.</i> 1998; 70(3): 431-437.		
	102.	GIBOT, et al. Plasma level of a triggering receptor expressed on myeloid cells-1: its diagnostic accuracy in patients with suspected sepsis. <i>Annals of Internal Medicine.</i> 2004; 141(1): 9-15.		
	103.	GIBOT, et al. Soluble triggering receptor expressed on myeloid cells and the diagnosis of pneumonia. <i>The New England Journal of Medicine.</i> 2004; 350(5): 451-458.		
	104.	Glenn Research Center, NASA. Particle Imaging Velocimetry. Available at <a href="http://www.grc.nasa.gov/WWW/Optinst/piv/background.htm">http://www.grc.nasa.gov/WWW/Optinst/piv/background.htm</a> and associated web pages. no date		
	105.	GOLDE, T. Alzheimer disease therapy: can the amyloid cascade be halted? <i>The Journal of Clinical Investigation.</i> 2003; 11(1): 11-18.		
	106.	GUENARD, et al. Two-channel sequential single-molecule measurement. <i>Anal. Chem.</i> 1997; 69(13): 2426-2433.		
	107.	HAAB, et al. Single molecule fluorescence burst detection of DNA fragments separated by capillary electrophoresis. <i>Anal. Chem.</i> 1995; 67(18): 3253-3260.		
	108.	HAAB, et al. Single-molecule detection of DNA separations in microfabricated capillary electrophoresis chips employing focused molecular streams. <i>Anal. Chem.</i> 1999; 71(22): 5137-5145.		
	109.	HAUGLAND, R. P.. <i>Molecular Probes Handbook of Fluorescent Probes and Research Product</i> , Ninth Edition, 2002, Molecular Probes, Inc.		

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				Application Number	10/574,055
				Filing Date	April 6, 2007
				First Named Inventor	Robert S. Puskas
				Art Unit	2857
				Examiner Name	Unassigned
Sheet	7	Of	8	Attorney Docket Number	31469-708.831

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
	110.	KELLER, et al. Analytical applications of single-molecule detection. Analytical Chemistry. 2002; 74(11): 317A-324A.	
	111.	LECAPTAIN, et al. Two-beam fluorescence cross-correlation spectroscopy in an electrophoretic mobility shift assay. Anal Chem. 2002; 74(5): 1171-1176.	
	112.	LI, et al. Ultrasensitive coincidence fluorescence detection of single DNA molecules. Anal Chem. 2003; 75(7): 1664-1670.	
	113.	LOSCHER, et al. Counting of single protein molecules at interfaces and application of this technique in early-stage diagnosis. Anal Chem. 1998; 70(15): 3202-5.	
	114.	LUCEY, et al. Type 1 and type 2 cytokine dysregulation in human infectious, neoplastic, and inflammatory diseases. Clinical Biology Reviews. 1996; 9(4): 532-562.	
	115.	MA, et al. High-Throughput Single-Molecule Spectroscopy in Free Solution. Anal. Chem. 2000; 72: 4640-4645.	
	116.	MA, et al. Single-molecule immunoassay and DNA diagnosis. Electrophoresis. 2001; 22(3): 421-426.	
	117.	NGUYEN, et al. Detection of single molecules of phycoerythrin in hydrodynamically focused flows by laser-induced fluorescence. Anal Chem. 1987; 59(17): 2158-2161.	
	118.	PECK, et al. Single-molecule fluorescence detection: autocorrelation criterion and experimental realization with phycoerythrin. Proc Natl Acad Sci USA. 1989; 86(11): 4087-4091.	
	119.	SAUER, et al. Detection and identification of individual antigen molecules in human serum with pulsed semiconductor lasers. Appl. Phys. B. 1997; 65: 427-431.	
	120.	SHERA, et al. Detection of single fluorescent molecules. Chemical Physics Letters. 1990; 174(6): 553-557.	
	121.	SHORTREED, et al. High-throughput single-molecule DNA screening based on electrophoresis. Anal Chem. 2000; 72(13): 2879-2885.	
	122.	SIDRANSKY, D. Emerging molecular markers of cancer. Nature Reviews: Cancer. 2002; 2(3): 210-219.	

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	123.	SOPER, et al. Photon burst detection of single near-infrared fluorescent molecules. Anal Chem. 1993; 65(6): 740-747.	
	124.	SOPER, et al. Single-molecule detection in the near-IR using continuous wave diode laser excitation with an avalanche photon detector. Applied Spectroscopy. 1998; 52(1): 1-6.	
	125.	UPATNIEKS, et al. A kilohertz frame rate cinematographic PIV system for laboratory-scale turbulent and unsteady flows. Experiments in Fluids. 2002; 32: 87-98.	
	126.	VAN ORDEN, et al. Single-molecule identification in flowing sample streams by fluorescence burst size and intraburst fluorescence decay rate. Anal Chem. 1998; 70(7): 1444-1451.	
	127.	WABUYELE, et al. Single molecule detection of double-stranded DNA in poly(methylmethacrylate) and polycarbonate microfluidic devices. Electrophoresis, October 2001; 22(18): 3939-3948.	
	128.	WILLNEFF, J. A spatio-temporal matching algorithm for 3D particle tracking velocimetry: a dissertation submitted to the Swiss Federal Institute of Technology Zurich for the degree of Doctoral of Technical Sciences (abstract). September 2003. Diss. ETH No. 15276. Available at <a href="http://e-collection.ethbib.ethz.ch/ecol-pool/diss/abstracts/p15276.pdf">http://e-collection.ethbib.ethz.ch/ecol-pool/diss/abstracts/p15276.pdf</a> .	
	129.	YEUNG. High-Throughput Single Molecule Screening of DNA and Proteins. Chem Rec. 2001; 1:123-129.	
	130.	ZHU, et al. Fluorescence multiplexing with time-resolved and spectral discrimination using a near-IR detector. Anal Chem. 2003; 75(10): 2280-2291.	

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